Amendments to the Abstract:

Please replace the Abstract of the disclosure with the following Abstract:

The present invention provides methods for reducing or inhibiting angiogenesis in a tissue, by contacting α5β1 integrin in the tissue with an agent that interferes with the specific binding of α5β1 integrin to a ligand expressed in the tissue; and methods of identifying angiogenesis in a tissue, by contacting the tissue with an agent that specifically binds α5β1 integrin, and detecting specific binding of the agent to α5β1 integrin associated with a blood vessel in the tissue. Also provided are methods of diagnosing a pathological condition characterized by angiogenesis in a tissue in an individual; methods of reducing or inhibiting angiogenesis in a tissue in an individual; and methods of reducing the severity of a pathological condition associated with angiogenesis in an individual, by administering to the individual an agent that interferes with specific binding of α5β1 integrin to a ligand in a tissue associated with the pathological condition.